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ANNUAL REPORT

OF

THE ROYAL BOTANIC GARDEN, CALCUTTA, 1891-92.

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ANNUAL REPORT OF THE ROYAL BOTANIC GARDEN, CALCUTTA, FOR THE YEAR 1891-92

No. 21G., dated Sibpur, the 11th May 1892.

From—SURGEON D. PRAIN, M.B., F.R.S.E., Acting Superintendent, Royal Botanic Garden, Calcutta,

To—The Secretary to the Government of Bengal, Financial Department.

I HAVE the honour to submit herewith the one hundred and fifth Annual Report of the Royal Botanic Garden.

ANNUAL REPORT OF THE ROYAL BOTANIC GARDEN, CALCUTTA, FOR THE YEAR 1891-92.

THE year under review has been one of great activity as regards outdoor operations. Another supplementary grant having been allotted by Government for the purpose of improving the condition of these driving roads adverted to in the Annual Report for 1890-91 as still in need of alteration, the attention of the outdoor staff has been mainly devoted to roadwork in the Palmetum, where it has been possible to replace the old path that connected the Howrah gate and the College gate entrances of the garden by a good driving road on a new and proper alignment, and to remake the approach leading from the College gate entrance to Colonel Kyd's monument. The latter undertaking was rendered necessary by the fact that this approach, one of the finest avenues in the garden, and the road that must, after the completion of the new drive along the river bank from Howrah, be the principal means of access to the centre of the garden, could not hitherto, owing to its low level, be used with comfort or even safety during the rains. The necessary alterations have involved a good deal of earth-cutting, and advantage has been taken of this to considerably enhance the appearance of the large Palmetum lake. Much remains to be done to bring the older roads in the garden into the excellent condition of the newer ones that have been aligned by Dr. King, what is chiefly required being the adjustment of their levels to admit of free surface-drainage, and at the same time to obviate scouring during the rains. But none of the work now left to be done is so formidable as that of the past year; practically all the earth-cutting necessary for the roads in the Palmetum at least has been completed. Still further improvements were effected along the river-bank, advantage being taken of the unusually low tides that prevailed during the months of February and March to repair and strengthen places that in ordinary seasons are inaccessible. The conservatories are in a satisfactory condition, and though some of the palms have suffered from the extreme drought of the early part of 1892, it has been possible to bring the plants under their shelter through a trying season with few actual losses to record. The orchid display was by no means equal to that of the last five or six seasons; though the plants commenced flowering very early, and though those that flowered first were even finer than usual, the conditions to which they were subjected during February and March rendered the blossoms of all the later flowering species small and few. Out of doors the abnormal season has proved very trying to many exotics, and though for a time all other work was suspended and the whole garden staff was employed only in watering plants, many casualties have unfortunately occurred, especially among the finer and rarer palms. But though it has been impossible to save all the individuals, it has fortunately been possible by devoting especial care to the stronger ones to preserve alive some representatives of nearly every species in the garden.

2. *Economic plants.*—The attention of the staff has been as usual largely directed to the cultivation and distribution of plants of economic interest. The chief event of the year under this head has been the introduction of the aloe which yields "sisal hemp" (*Agave rigida*, var. *Sisalana*). The Director of the Royal Gardens, Kew, in June 1891 kindly obtained a consignment of plants for

the Calcutta Garden from Florida and kept these at Kew till they were strong enough to stand the voyage to Calcutta. The boxes reached Calcutta on 29th October 1891; unfortunately a considerable percentage of the plants died on the way out, and it has been necessary to nurse the survivors carefully before venturing to distribute them. They are now being distributed; as usual in such cases, the garden authorities are being assisted by the Agri-Horticultural Society of India, which heartily co-operates in bringing plants of this kind to the notice of the public and in furthering their distribution especially among the planting community.

3. *Herbarium.*—The work in this department was of the usual description. Over 19,000 specimens were contributed to the Herbarium during the year from various sources; while the distribution of authentically-named specimens to other herbaria reached the high total of 10,505 sheets. The precise details of these accessions and of the distribution are shown in two of the appended lists The chief benefactor to the Calcutta Herbarium has again been the Royal Herbarium, Kew, to the Director of which institution the Calcutta one owes a debt that can never be repaid. Baron Von Mueller has again contributed a beautiful collection of Australian plants; the Herbarium has been greatly enriched by further accessions of Tibetan, Chinese, and Mexican specimens; the Saharanpur Herbarium has presented 954 plants from the North-West Himalaya; Mr. J. H. Lace has sent a contribution of 627 specimens from the same region; Mr. J. S. Gamble has sent 256 from Jaunsar-Bihár and Dehra Dun. Mr. H. N. Ridley, Director of the Singapore Garden, has sent 498 specimens from the Malay Peninsula, mainly from the recently explored province of Pahang; General Sir H. Collett, K.C.B., has again befriended the Herbarium by sending some interesting plants from Khasia and Manipur; Dr. L. A. Waddell has contributed some specimens from the more remote valleys of Independent Sikkim; Captain Fulton has sent some specimens from Upper Burma; Mr. S. E. Peal another collection from Upper Assam; Dr. J. J. Wood a very complete collection from Chota Nagpur; Mr. W. A. Talbot another interesting collection from North Canara; Dr. T. Cooke, C.I.E, some interesting specimens from Scinde, and Mr. Heawood a small collection from the neighbourhood of the Sonthal Colony in the Duars. One of the most interesting contributions of the year has been a very carefully made and complete collection of the plants of the little visited Laccadive Archipelago, sent by Dr. Alcock, Surgeon Naturalist of Her Majesty's Indian Marine survey steamer *Investigator*. The chief recipients of distributed specimens have been the officers in charge of the great national herbaria; in the United Kingdom sets have been presented to the Royal Gardens, Kew, the British Museum, the Royal Botanic Garden, Edinburgh, the Universities of Cambridge and of Aberdeen and Owen's College, Manchester: in India and the East to the Herbaria at Saharanpur; Madras (Government Central Museum); Poona (College of Science); Dehra Dun (Imperial Forest School); Royal Botanic Garden, Peradeniya, Ceylon; Singapore (Botanic Garden); Perak (Government Museum); Penang (Forest Department); Straits Settlements, Royal Botanic Garden, Buitenzorg, Java; University Herbarium, Melbourne, Australia. The chief foreign recipients besides the famous kindred Dutch institution in Java have been the Smithsonian Institution, Washington; the Imperial Gardens, St. Petersburg; the National Botanical Museums in Berlin, Vienna, Paris, Florence, and Leiden; the University Herbaria of Vienna, Utrecht, and Upsala, and the great Herbarium of M. de Candolle at Geneva.

4. *Botanical collection.*—During the year full advantage was taken of the various opportunities offered for the botanical exploration of the provinces allotted to the Superintendent of the Royal Botanic Garden, Colonel T. Cadell, V.C., Chief Commissioner of the Andamans, whose assistance has already had so often to be acknowledged, having invited Dr. Prain to revisit Port Blair in connection with the botanical exploration of his province, and Dr. King having permitted the visit, Dr. Prain proceeded to Port Blair in March 1891. The station steamer, Her Majesty's Indian Marine steamer *Nancowry*, having been placed at his disposal by Colonel Cadell, Dr. Prain was enabled to visit and investigate the flora of Narcondam, Barren Island, Little Andaman, Car-Nicobar, and Batti Malv—all these, save Car-Nicobar, being places never before botanically investigated. Mr. E. H. Man has again most kindly superintended the collection of

specimens in the neighbourhood of Port Blair by Burmese convicts. In November 1891, Dr. Prain visited Mount Parasnath and made a botanical tour in Chota Nagpur, while in March 1892 he was directed to make a botanical tour in the Khasia, and more particularly the Jaintea Hills. This tour was in connection with the botanical survey of Assam and Burma, towards which the Government of India and the local Governments of Burma and Assam give annual grants. In connection with this survey also Mr. Proudlock, Curator of the garden, was sent in February 1892 on a collecting tour to Tenasserim, Tavoy, and Mergui. In Assam two native collectors were at work in the Naga Hills for the greater part of the year; latterly they collected on the Lushai frontier; the recent troubles in this region have unfortunately as yet prevented Mr. McCabe from taking the men into the interior of the Lushai country, and personally supervising their work, as he has most kindly volunteered to do. From Burma, besides the Tenasserim and Mergui collections, other collections have been received from the garden collector, Abdul Hok, who has been at work in the Shan Hills and the Ruby Mine districts; some specimens have also been received from frontier stations under the arrangement mentioned in last year's report as having been kindly made by Dr. Leslie.

5. *Publications.*—During the year the third volume of the Garden Annals was issued, and the greater part of the fourth volume, which is to consist of a monograph by Dr. King of the difficult and important family of *Anonaceæ*, has been elaborated. Besides this Dr. King has also continued his series of papers on the Malayan Flora, part 3 (dealing with the natural orders *Malvaceæ*, *Sterculiaceæ*, and *Tiliaceæ*) having been published in the beginning of the year, while part 4 (dealing with *Anonaceæ*) is, at its close, in the hands of the printer. These papers are published in the *Journal* of the Asiatic Society of Bengal. In the same *Journal* two descriptive papers—on a new species of *Nepeta* and on two new species of *Glyptopetalum*—have been published by Dr. Prain, who has in the same place published the account of the *Vegetation of the Coco Group*, referred to as in preparation when the last Annual Report was submitted. The Asiatic Society has also published Dr. Prain's account of the botanical results of his visits to Little Andaman and the Nicobars.

6. *Library.*—Some new books have been purchased; others have been presented to the Library; a good number of old ones have been rebound. Perhaps the most interesting occurrence in connection with the Library has been the acquisition of a portrait of Colonel Robert Kyd. Learning that a portrait of this distinguished soldier was in the possession of the Agri-Horticultural Society, the Curator of the Herbarium, with Dr. King's permission, asked the Society to be allowed to have it copied for the Library of the Royal Botanic Garden. The President and Council having very cordially granted this request, a copy of the original, carefully executed in the Government School of Art, has now been completed, and a portrait of the gentleman who in June 1786 suggested to the Honourable the Board of Directors "the propriety "of establishing a Botanic Garden," and who performed the duties of Honorary Superintendent here from August 1786, when the undertaking was commenced, till his death in 1793—an officer described by the Honourable the Court of Directors in the letter in which, in 1787, they sanctioned the action of the Honourable Board in the previous year, as one "who, by the attention he has "shown to a matter which may one day prove of the greatest benefit to his "constituents and to his country, stands most deservedly high in our esteem "and favour,"—at length hangs in the museum of the institution with which his name is so intimately associated.

7. *Interchange of plants and seeds.*—The distribution lists attached to this report show that during the year 14,251 plants were received and 46,435 plants were distributed, while of seeds 1,580 packets were received and 2,972 packets were distributed, the recipients both of plants and seeds being, as is usual, nearly all public officers.

8. *Lloyd Botanic Garden, Darjeeling.*—This garden was throughout the year under the charge of Mr. W. A. Kennedy, and was in excellent condition till 19th July, on which date locusts appeared in huge flights; the day of their arrival happened unfortunately to be a Sunday, when no coolies could be obtained, and the creatures could not be kept flying; much destruction was done, in some parts of the garden nothing but bare soil being left.

Thanks, however, to Mr. Kennedy's energy and care, the damage committed was wonderfully quickly remedied, and long before the close of the year the garden had again been brought into a state of excellent order.

9. The sums provided in the budget for the maintenance of the gardens both at Calcutta and Darjeeling were utilized in full; indeed, owing to the Accountant-General having found it necessary to charge directly against the garden budget allotments the cost of and freight on Europe stores sent by the Secretary of State from England, there will be a small technical deficit. This is the first occasion on which these charges have been directly deducted from the budget allotments; as no intimation that the step would be necessary was made by the Accountant-General till 11th March 1892, and as a statement of the full amount of the charges under this head was not communicated by him till 28th April 1892 (after the financial year had closed), it was impossible to apply to Government for an additional grant to meet the charges under this head before the close of the financial year, and equally impossible to regulate the expenditure for the year so as to meet the charges under this head from the existing allotment. The steps necessary for the adjustment of the accounts are now being taken. The revenue of the Darjeeling garden fell short of the estimate by Rs 42—a circumstance altogether to be accounted for by the visitation of locusts; the revenue of the Calcutta garden, on the other hand, somewhat exceeded the estimated receipts for the year.

10. Dr. King, Superintendent of the Garden, was absent on privilege leave for two months and 26 days from 15th July; during his absence the duties of Superintendent were performed by Dr. Prain in addition to his own as Curator of the Herbarium. Mr. R. L. Proudlock has been Curator of the Garden during the year; Mr. G. T. Lane has been Assistant Curator; both officers have worked well, as has the Head Clerk, Babu G. C. Datta, and the office staff under him.

11. Six appendices are attached, which show the issues and receipts of seeds, the issues and receipts of plants, and the accession and distribution of herbarium specimens.

APPENDIX I.

Statement showing plants received from 1st April 1891 *to* 31*st March* 1892.

From whom received.	Wardian cases.	Boxes.	Number of plants.
Royal Gardens, Kew, London	3	2	1,140
Royal Botanic Garden, Peradeniya, Ceylon	1	...	36
Botanic Garden, Durban, Natal ...	...	...	32
Ditto, Trinidad	...	1	15
Ditto, Buitenzorg, Java ...	2	..	96
Ditto, Saharanpur	...	1	677
Ditto, Darjeeling	2	27	3,860
Ditto, Bangalore	...	...	52
Victoria Garden, Bombay	3	...	77
Memorial Garden, Cawnpore	...	1	93
William Bull, Esq, F.L.S., Chelsea, London	...	1	43
Messrs. H. Low and Sons, Clapton Nursery, London	...	1	24
Messrs. F. Sander & Co., St. Albans, England	1	...	24
Agri-Horticultural Society, Calcutta ...	...	...	1
Ditto ditto, Lahore ...	...	7	347
Ditto ditto, Madras ...	...	...	700
Ditto ditto, Rangoon ...	...	...	3
M. Ridley, Esq., Government Agricultural Garden, Lucknow	...	...	500
La Martinière School, Calcutta	...	...	2
Gwalior State Garden	...	...	410
Cossipore Practical Institution	...	...	7
R. Rose, Esq., Deputy Postmaster-General, Lucknow	...	...	560
C. A B. Anderson, Esq., Kolabari ...	...	...	45
G. W. Bartlett, Esq., Calcutta ...	...	...	2
R. M. Blamey, Esq.	...	...	3
W. Boxall, Esq., Mandalay	...	1	254
Captain Elcote of the S.S. *Victory* ...	...	...	1
J. Gammie, Esq., Mungpoo	...	6	579
Hon'ble C. B. Garret, C.S., Calcutta ...	...	...	1
T. C. Huxley, Esq., Peradeniya ...	1	...	30
J. L. Lister, Esq., Bhutan	...	1	176
Lieutenant E. J. Lugard, B.S.C. ...	..	1	3
E. H. Man, Esq., Port Blair	2	4	242
Lincl de Niceville, Esq., Calcutta ...	...	...	1
R. Pantling, Esq., Mungpoo	...	1	7
J. Parkes, Esq., Bhutan	...	...	355
G. Mc. D. Peche, Esq., Moulmein ...	...	...	343
F. Schiller, Esq.	...	...	1
Dr. C. J. Simons, Assam	1	...	15
J. S. Slater, Esq., Engineering College ...	...	...	65
Walter Stiefelhagen, Esq., Assam ...	...	...	4
Colonel Waterhouse, Calcutta	...	...	1
G. Marshall Woodrow, Esq., Poona ...	...	...	902
Collected by Dr. George King, C.I.E., at Teendaria		...	1
Collected by Dr. David Prain, at Andamans	1	...	63
Ditto by Mr. R. L. Proudlock at Mungpoo, Dum-Dum, and Tenasserim ...	...	...	218
Ditto by Abdul Hok at Burma ...	...	3	337
Ditto by Babooullah Jharami at Andamans	...	...	558
Ditto by Jameeruddy Mallee at Burdwan	...	..	26
Babu Soorjoo Deo Narain Singh, Balegarh ..	...	5	31
„ S. P. Chatterjee, Calcutta ...	...	1	638
Shaik Sadar Mallee, thána Makooah ...	...	...	43
Unknown donors	...	1	607
Total ...	17	65	14,251

APPENDIX II.

Statement showing plants sent out from 1st April 1891 to 31st March 1892.

To whom sent.	Wardian cases.	Boxes.	Number of plants.
Royal Gardens, Kew, London	1	1	43
Imperial Garden, St. Petersburg, Russia ...	...	2	326
Royal Botanic Garden, Peradeniya, Ceylon...	2	1	151
Botanic Garden, Jamaica	3	...	78
Ditto, Singapore	1	1	113
Ditto, Durban, Natal ...	2	...	48
Ditto, Rangoon	...	1	6
Ditto, Ootacamund	...	1	114
Ditto, Saharanpur	...	3	206
Ditto, Darjeeling	...	1	18
Victoria Garden, Bombay	...	1	6
Memorial Garden, Cawnpore	...	3	97
Government House Garden, Calcutta ...	...	...	1
Belvedere Garden, Alipore	...	...	37
Zoological Garden, Alipore	...	...	2
His Excellency the Governor of Madras ...	1	...	35
Military Secretary to His Excellency the Viceroy	...	...	100
G. Barclay, Esq.	...	1	90
William Bull, Esq., Chelsea, London ...	3	...	46
J. Galloway, Esq., Kilmeny, Scotland ...	...	1	50
M. Edouard Guillaume, 105, Boulevard Brune, Paris	...	1	38
T. C. Huxley, Esq, Peradeniya... ...	...	1	56
Sir George McLeay, Pendell Court, England	1	...	8
S. M. Mainwaring, Esq., Natal ..	1	...	37
Dr. George Niven, Didsbury, Manchester ...	...	2	129
R. M. Redhead, Esq.	...	1	100
Madame Finet, Rue St. Germain, Paris ...	...	1	56
Mrs. Faraday Smith, Tunbridge, England ...	...	1	110
Colonel C. E. Stewart, Tabreez, Persia ...	4	...	42
Messrs. Hugh Low and Sons, Clapton Nursery, London	...	16	2,800
Messrs. F. Sander & Co., St. Albans, England	...	6	1,695
Agri-Horticultural Society of India, Calcutta	...	...	500
Ditto ditto, Madras	...	1	6
Agri.-Horticultural Garden, Lahore ...	...	14	262
Ditto ditto, Lucknow ...	...	1	6
Chief Commissioner, Burma	...	1	19
Commissioner of Police, Calcutta ...	...	...	324
Deputy Commissioner, Rangamatti, Chittagong	...	1	224
Ditto, Jalpáiguri ...	...	7	100
Assistant Commissioner of Salt and Abkari Revenue, Balasore	...	1	30
Director, Forest School, Dehra Dun ...	...	9	185
Collector of Murshidabad, Berhampore ...	...	7	158
Officiating Collector, Chittagong ...	...	3	26
Magistrate of Bhágalpur ...	...	3	60
Magistrate and Collector, Mymensingh ..	...	11	240
Subdivisional Officer, Pakaur ...	..	...	401
Ditto, Rampur Hát ...	...	7	180
Chairman, Sirajganj Municipality ...	...	5	120
Ditto, District Board, Noakhali ...	...	12	300
Cantonment Magistrate, Barrackpore ...	...	...	170
Magistrate and Chairman, District Board, Nadia	...	4	1,000
Vice-Chairman, District Board, Naogaon ...	...	1	25
Ditto, Local Board, ditto ...	...	2	50
District Engineer, Backergunge, Barisál ..	...	14	350
Ditto, District Board, Midnapore	...	40	1,000

APPENDIX II—*continued.*

To whom sent.	Wardian cases.	Boxes.	Number of plants.
Assistant Engineer, Central Road Works, Calcutta	...	...	400
Assistant Engineer, Asansol Subdivision, Dehika	...	52	1,000
Superintendent of Jail, Alipore ...	...	...	16
Ditto of Jail, Midnapore ...	...	...	478
Ditto of Presidency Jail, Calcutta...	...	..	1,140
Ditto of Jalpaiguri ...	...	2	34
Superintendent, Tura Sub-Jail, Assam ..	...	1	17
Ditto, Barrackpore Park ...	.	...	34
Ditto, Lunatic Asylums, Alipore ...	...	...	1,810
Ditto, Foundry and Shell Factory, Cossipore ...	...	...	317
Ditto, Horticultural Institution, Cossipore	...	...	12
Ditto, P & O. Co , Ld., Calcutta ..	...	...	867
The Ladies' Golf Club, Calcutta	...	...	20
Manager, Bengal Mills, Garden Reach ...	...	...	18
The Master of the Mint, Calcutta ...	...	...	300
Meteorological Reporter, Calcutta ...		...	200
Postmaster, Diamond Harbour ...	...	...	50
Deputy Postmaster-General, Lucknow ...	...	5	109
Ditto ditto, Dinapore ...	...	2	136
Settlement Officer, Jalpaiguri	...	4	80
Soldiers' Gardens, Fort William ...	...	...	1,869
Ditto, Dum-Dum ...	...	...	200
The Captain and Steward of the S.S. *Attica* ...	...	...	24
Medical College Hospital, Calcutta ...	...	...	126
Howrah Hospital	...	...	1,113
La Martinière School, Calcutta	...	...	3,450
Christ Church School, Calcutta	...	...	100
St. John's Church, Calcutta	...	...	400
St. Joseph's Home, Calcutta	...	...	100
Church of England Zanána Mission Society, Calcutta	...	..	1,380
General Assembly's Institution	...	...	130
E. I. Railway, Howrah	...	...	2,000
E. B. S. Railway, Sealdah	...	6	140
A. A. Apcar, Esq., Calcutta	...	...	49
C. A. B. Anderson, Esq.	...	...	19
T B. Anderson, Esq.	...	...	12
T. J. Ayres, Esq., Howrah	...	...	6
Mrs. E. M. Bacon, Lalitpur	...	1	50
H. Bahr, Esq., Sonthal Colony ..	...	1	42
G. W Bartlett, Esq., Calcutta ...	...	...	1
Miss Buchanan, Calcutta	...	...	300
Mrs. E. M. Coss, Calcutta	...	...	3
Dr. D. D. Cunningham, F.R.S., Calcutta ...	...	...	34
Rev. J. A. Elliott	...	...	1
Mrs. Fiddian, Howrah	...	...	4
J. Gammie, Esq., Mungpoo	...	9	220
Hon'ble C. B. Garrett, C.S., Calcutta ...	...	...	55
Mrs. Gillespie, Howrah	...	...	5
T. Grant, Esq , Sainthia	...	1	4
H. H. Hamilton, Esq., Calcutta ...	...	...	80
Mrs. Horne, Calcutta	...		3
A. C. Hartless, Esq., Mungpoo ...	...	6	114
Dr. Hœrnle, Calcutta	..	...	727
G. Huddleston, Esq., Khagore ...	.	1	136
Rev. H. B. Hyde, Calcutta	...	...	120
E. W. Jewett, Esq , Calcutta	...	...	7
J. Johnson, Esq., S.S. *City of Venice* ...	...	...	2
W. Kilburn, Esq., Calcutta	..	...	24

APPENDIX II—*continued.*

To whom sent.	Wardian cases.	Boxes.	Number of plants.
Dr. George King, M.B., C.I.E. ..	...	...	32
G. T. Lane, Esq.	...	.	16
Mrs. Leeson, Calcutta .. .	...	...	24
C. S. Lethbridge, Esq., Calcutta	...	...	2
Prince Linben, Calcutta	...	...	2
C. Little, Esq , „	...	...	12
Mrs. Lyall, „	..	..	2,123
„ Macdonell, Engineering College ...	...	...	752
Col. J. Mackesy, Tirhut	...	...	34
E. H. Man, Esq., Port Blair	...	1	34
C. Maries, Esq., Gwalior	...	34	249
J. W. Mawhood, Esq , Calcutta ...	...	5	2,500
Mrs Maxwell, Howrah	...	..	100
M. Nahar. Esq.. Azimganj	...	3	24
M. Nod, Esq., Cachar	...	...	2
R. Pantling, Esq., Mungpoo	...	2	61
R. L. Proudlock, Esq.	...	...	2
Dr. F. Rahan, Khulna	...	2	50
„ D. O'C. Raye, Calcutta	...	...	36
G. O. Ranger, Esq., Ballygunge ..	...	...	15
H. R. Reily, Esq., Cuttack	...	8	116
W. Roberts, Esq., Sulkeah Salt Golah ...	...	...	302
J. Robinson, Esq , Bhágalpur	...	13	326
P. C. Rodrygues, Esq., Bombay ...	...	1	6
Charles Ross, Esq., Sibpur	...	...	200
Colonel H. Sadler, Calcutta	...	...	112
Mrs. Shaw, Engineering College ...	...	...	1,761
C. J. Simson, Esq., Mahmarra Tea Estate ...	1	4	82
J. S. Slater, Esq , Engineering College ...	...	...	962
Mrs. Goldsmith, Calcutta	...	...	125
E M. Smith, Esq., Calcutta	...	...	8
Captain A. Symons, S.S. *Cathay* ...	...	5	218
A. Thompson, Esq., Jalpaiguri	...	1	4
J. H. Toogood, Esq , Engineering College...	...	..	508
Dr. C. J. Warden, Alipore	...	..	8
Mrs. Wicks, Howrah	...	...	11
R. Wimberley, Esq., Port Blair ...	...	1	15
W. T. Wood, Esq., Calcutta	...	..	6
George Yule, Esq., Jiagunge	...	2	25
Messrs. W. B. Mactavish & Co., Calcutta ...	...	8	164
The Hon'ble Nawab Asanullah Khan Bahadoor, C.I.E., Dacca	...	9	150
Rai Bahadoor Hari Dass Vehari Dass, Dewan Sahib of Junagadh, Bombay	..	1	236
Kumar Gogendra Narayan, M.R.A.C., Kuch Bihar	...	5	129
Chowdhoory Mahadeo Prosad, Nanpur ...	...	4	100
Pandit Shahoo Ram Sharup, Thakurdwara ...	...	1	6
Babu Soorjoo Deo Narain Sing, Balegarh ...	...	...	69
„ A. C Banerjee, Allahabad ...	...	...	2
„ A. T. Lahiri, Nadia		1	6
„ B. B. Ghosh, Taki	...	...	71
„ B. Sing Ray, Haripal	...	2	10
„ D. N. Shaynia, Motihari ..	...	1	25
„ G. C. Datta, Sibpur ...	...	...	36
„ G. C. Halder, Serampore ...		...	51
„ G. C. Roy, Baranagore	...	...	26
„ H. S. Roy, Calcutta	...	...	7
„ J. B. Bose, Comilla	...	...	7
„ J. N. Paul, Ghoshpur	...	...	100
„ K. C. Palit, Calcutta	...	...	104
„ M. N. Dey, Calcutta	...	...	10
„ N. S. Datta, Howrah	...	...	100

APPENDIX II—*concluded.*

To whom sent.	Wardian cases.	Boxes.	Number of plants.
Babu N. C. Roy, Calcutta	...	...	24
„ N. C. Baral, Calcutta	...	...	771
„ N. G. Mookerjee, Jamtara ...	...	1	195
„ P. C. Ghosh, Calcutta	...	...	15
„ R. C. Roy, Ranchi	...	5	29
„ R. Malleah, Howrah	...	...	28
„ R. R. Ghosh, Dacca	...	...	2
„ S. C. Bhuttacharjee, Santipur ...	...	2	9
„ S. K. Roy Chowdhury, Taki ...	...	...	16
„ S. P. Chatterjee, Calcutta ...	...	...	50
„ W. A. Sen, Ramkrishtopur ...	...	...	2
Essen Chundra Dass, Nurseryman, Manicktolla	...	...	21
Gopal Chundra Samunta, Nurseryman, Manicktolla	...	...	300
Hari Dass Dass, Nurseryman, Manicktolla ...	...	...	4
Neymai Charun Samanta, Nurseryman, Manicktolla	...	...	200
Mahomed Shahib, Garden Reach ...	...	...	2
Munshi Tusteemudin, Calcutta	...	...	7
Shaik Dewan Mallee, Thána Makooah ...	...	...	24
Total ...	20	403	46,435

APPENDIX III.

Statement showing seeds received from 1*st April* 1891 *to* 31*st March* 1892.

From whom received.	Number of parcels or packets.
W. T. Thiselton Dyer, Esq., F.R.S., C.M.G., Director, Royal Gardens, Kew, London	131
Dr. Regel, Imperial Garden, St. Petersburg, Russia ...	213
Royal Botanic Garden, Peradeniya, Ceylon ...	16
Botanic Garden, Adelaide	1
Ditto, Brisbane	3
Ditto, British Guiana	2
Ditto, Bangalore	7
Ditto, Port Darwin	29
Ditto, Darjeeling	262
Ditto, Grenada	2
Ditto, Hongkong	7
Ditto, Jamaica	7
Ditto, Mauritius	12
Ditto, Mussoorie	1
Ditto, Rockhampton	2
Ditto, Saharanpur	30
Ditto, Singapore	1
Ditto, Trinidad	19
Ditto, Queensland	5
George H. T. Mayer, Esq., Memorial Garden, Cawnpore	6
G. Carstensen, Esq., Superintendent, Victoria Garden, Bombay	2
Baron Ferdinand Von Mueller, F.R.S., Melbourne, Australia	4
Secretary to the Agri-Horticultural Society of India, Calcutta	1
Superintendent, Agri-Horticultural Garden, Lahore ...	152
Ditto ditto, Madras ..	2
F. Bailey, Esq., Government Botanist, Queensland ...	1
Conservator of Forests, School Circle, North-Western Provinces and Oudh, Dehra Dun	2

APPENDIX III—*concluded.*

From whom received.	Number of parcels or packets.
Assistant Conservator of Forests, Darjeeling Division	1
Deputy Conservator of Forests, Dehra Dun Division	1
Forest Officer in charge, Chittagong Division, Rangamati	1
J. Gammie, Esq., Mungpoo	4
Signor T. Hanbury, F.L.S., La Mortola, Ventimiglia, Italy	146
Mr. Kingdon, Madagascar	4
J. L. Lister, Esq., Kalimpong	4
Manager, Palm and Citrus Nursery Company, Santa Barbara, California	8
E. H. Mann, Esq., Port Blair	22
C. Maries, Esq., Gwalior	1
Messrs. Dammann & Co., Teduccio, Italy ...	368
Messrs. Reasoner Brothers, Royal Palm Nurseries, Manatu, Florida	13
Dr. David Prain	29
Colonel Pritchard	1
R. L. Proudlock, Esq.	13
Revenue and Agricultural Department, Government of India	1
Babu Bishumbhur Ghose, Taki	1
„ Nittanunda Mondul	1
Munshi Abdul Hok, Plant Collector	3
Unknown dónor	38
Total ...	1,580

APPENDIX IV.

Statement showing seeds distributed from the Royal Botanic Garden during the year 1891-92.

To whom sent.	Number of parcels or packets.
W. T. Thiselton Dyer, Esq., F.R.S., C.M.G., Director, Royal Gardens, Kew, London ...	96
Dr. Regel, Imperial Garden, St. Petersburg, Russia ...	102
Royal Botanic Garden, Peradeniya, Ceylon ...	19
Botanic Garden, Buitenzorg, Java	5
Ditto, Darjeeling	235
Ditto, Port Darwin	16
Ditto and Domain Garden, Melbourne ...	11
Ditto, Ganesh Khund, Poona	1
Ditto, Greneda	10
Ditto, Rockhampton	5
Ditto, Saharanpur	3
Ditto, Singapore	4
Memorial Garden, Cawnpore	2
Taj Garden, Agra	5
Victoria Garden, Bombay	1
Nizam's Government Gardens, Aurangabad ...	2
Baron Ferdinand Von Mueller, F.R.S., Melbourne ...	19
Herr Professor Rawenhoff, Botanic Garden, University, Utrecht	69
Secretary to the Agri-Horticultural Society of India, Calcutta	3
Ditto ditto, Rangoon...	2
Superintendent, Agri-Horticultural Garden, Lahore ...	4
Ditto, ditto, Lucknow	16
Ditto, ditto, Madras ...	3
Ditto, Bhágalpur Jail	1
Ditto, Intermediate Jail, Bogra	1
Ditto, Comilla Jail	1
Ditto, Motihari Jail	1
Ditto, Patna Jail	1

APPENDIX IV—*continued.*

To whom sent.	Number of parcels or packets.
Assistant Jailor, Noakhali Jail	1
Pandit Shadookwa Rao, Assistant Superintendent, State Gardens, Gwalior	2
Colonel J. C. Ardagh, R.E., C.B., Private Secretary to His Excellency the Viceroy, Simla	42
H. Bahr, Esq., Sonthal Colony, Thakurpara ...	112
Lieutenant-Colonel Lord William Beresford, C.I.E., Military Secretary to the Viceroy	3
Mrs Betts, 116, Ripon Street, Calcutta	12
R. Bignell, Esq., Private Secretary to His Highness the Maharajah of Kuch Bihar, Woodlands, Alipore	1
Sir W. Bowman, F.R.S., Joldwynds, England ...	98
Professor Bower, F.R.S., University, Glasgow ...	54
C. M. Brimy, Esq., Commercial Buildings, Calcutta ..	48
Dr. J. Campbell Brown, F.R.S., Liverpool, England ...	32
J. Cleghorn, Esq., Executive Engineer, Public Works Department, Chakradharpur	49
H. Cloëta, Esq., Writers' Buildings, Calcutta ...	47
Brigadier-General H. Collett, C.B., Shillong ...	187
Lieutenant-Colonel, Intelligence Department, Simla ...	47
Officer Commanding, 51st Royal Artillery, Dinapore ...	25
Officiating Director of Land Records and Agriculture, Rangoon	2
Deputy Conservator of Forests, Buxa Subdivision, Buxa Duar, Jalpaiguri	1
Forest Officer in charge, Chittagong Division, Chittagong	1
Forest Officer, Port Blair, Andamans	1
District Forest Officer, Bellary, Madras	1
Ditto, Chingleput, Madras ...	1
Ditto, Nellore, Madras	1
District Engineer, Bhágalpur	2
Ditto, Pabna	1
Ditto, Rangpur	8
Executive Engineer, Eastern Bengal State Railway, Northern Section, Saidpur	12
The Kattywar Agency Engineer, Rajkote ...	1
Overseer, District Board, Sirajganj	1
G. F. Scott-Elliot, Esq., Newton Dumfries, Scotland	37
Mr. G. H. Ellis, C/o G. H. Ellis, Esq., Forest Department, Khulna	190
Dr. A. Engler Konigl. Botaniches Museum, Berlin ...	90
F. B. Gadsden, Esq., Kanity, Vizagapatam ...	3
J. Sykes Gamble, Esq., Director, Forest School, Dehra Dun	2
J. Gammie, Esq., Mungpoo	75
Robert Philip Heilgers, Esq., Imperial and Royal Austro-Hungarian Consul, Calcutta	90
Monsieur Guillaume, 105, Boulevard Brune, Paris ...	5
G. Hadfield, Esq., District Forest Officer, South Malabar, Madras	1
James Inglis, Esq., Sydney, Australia	1
Rev. J. C. Inglis, Mainpuri	1
Inspector, Salt and Abkari Revenue, Kanity, Vizagapatam	4
The Acting Imperial and Royal Austro-Hungarian Consul, Calcutta	166
Professor J. G. McKendrick, F.R.S., University, Glasgow, Scotland	43
Rev. A. Logsdail, S. P. S. Missionary, Chaibassa, Singhbhum	50
S. M. Mainwaring, Esq., Natal	2
The Manager of "The Duthie Park," Aberdeen ...	59
C. Maries, Esq., Gwalior	19
Messrs. Kilburn and Co., Calcutta	4
" H. Low and Co., Clapton Nursery, London ...	4
" W. B. Mactavish and Co., Calcutta ...	27

APPENDIX IV—*concluded.*

To whom sent.	Number of parcels or packets
Messrs. Williamson, Magor and Co., Calcutta ...	10
„ Stanley, Price and Co., Calcutta	1
„ J. P. Williams and Bros., Heneratgoda ...	8
D. MacNair, Esq., Lock End, Kodikanal, Madura District, Madras Presidency	34
Officer in medical charge, Station Hospital, Pachmarhi	26
The Medical Officer in charge, Station Hospital, British Troops, Barrackpore	23
Rev. O. Pakenham, Longford Lodge, Ireland ...	1
G. T. Paschould, Esq., Deohri, Fyzabad	1
F. W. Phillips, Esq., in charge, Public Garden, Allahabad	3
Hugh C. Prance, Esq., District Superintendent of Police, Shwebo, Burma	11
Mrs. Prain, Sureil, Kurseong	53
The Garrison Quarter-Master, Fort William, Calcutta	48
R. Milne Redhead, Esq., Springfield, Seedley, Manchester	51
Mr. Robinson, Howrah	1
H. J. Roberts, Esq., Calcutta	1
Kinton Stevens, Esq., Palm and Citras Nursery, California	10
R. Thieneniam, Esq., Gardener to the Hon'ble George King, Queensland, Australia	191
Captain Thwaytes, Moulmein, Burma	3
Surgeon-General W. Walker, M.D., Claremont, Alleyn Park	25
M. R. Weld, Esq., Kurnool, Madras	71
G. Marshall Woodrow, Esq., College of Science, Poona	2
Dr. M. N. Ganguli, Medical Practitioner, Cawnpore ..	12
Pandit U. Narsing Row, Court Road, Mangalore ...	1
N. Ramalinga Nayager, Esq., Madras	1
Shariff Salemahamud, Esq., Commercial Agent, Junagudah State, Kathiawar	1
Rai Surj Mull Jhoonjhoonwallah Bahadur, Calcutta ...	1
Babu Avinas Chundra Banerjee, Assistant Surgeon, Allahabad	13
Babu Abinash Chundra Sen, Sibpur	8
„ Bipin Behari Chattopadhoy, Medical Officer, Niduta Charitable Dispensary	1
Babu Bissumbhur Ghose, Taki	1
„ Dabendra Nath Basu, Sibpur	20
„ Gopal Chundra Datta, do.	44
„ Jadub Chundra Biswas, Calcutta	5
„ Nimai Churn Dey, Sibpur	5
„ Protap Narain Singh, retired Deputy Magistrate, Bankura	1
Total ...	2,972

APPENDIX V.

List showing contributions to the Herbarium during 1891-92.

Herbarium, Royal Gardens, Kew	2,300
Dr. Henry's Chinese plants	1,763
Mr. A. E. Pratt's Tibetan plants	777
Baron Sir F. Von Mueller, K.C.M.G., F.R.S., Melbourne; Australian plants	817
Mr. C. Pringle's Mexican plants	600
Mr. H. N. Ridley, Singapore; plants from Pahang, Malay Peninsula	498
Saharanpur Herbarium; plants of Kashmir, etc. ...	954
General Sir H. Collett, K.C.B.; plants of Assam, etc. ...	250
J. S. Gamble, Esq.; plants of Jaunsar-Bihár ...	256
J. H. Lace, Esq.; plants of Bashahr	627
W. A. Talbot, Esq.; plants of Canara	111

APPENDIX V—*concluded.*

Dr. A. Alcock, Her Majesty's Indian Marine *Investigator;* Laccadive plants		300
Dr. J. J. Wood; plants of Chota Nagpur		334
Dr. L. A. Waddell; Sikhim plants		64
Captain Fulton; plants of Upper Burma		44
Mr. S. E. Peal; plants of Upper Assam		212
Mr. E. Heawood; plants of the Duars		128
Dr. T. Cooke, C.I.E.; plants of Scinde		56
Garden collectors—		
Mr. Pantling; orchids of the Sikhim Himalaya ...	1,418	
Dr. Prain; Narcondam, Barren Island, Nicobars, etc.	930	
Ditto; Chota Nagpur	500	
Ditto; Jaintea Hills	320	
Andamans collections, under supervision of E. H. Man, Esq.	2,300	
Assam collections; Native collectors	1,019	
Burma collections; Mr. Proudlock, Tenasserim ...	520	
Do. do; Munshi Abdul Hok ...	1,974	
Do. do; Dr. Leslie's collectors ...	33	
		9,014
Total ...		19,105

APPENDIX VI.

List showing distribution of authentically named Herbarium Specimens during 1891-92.

Herbarium, Royal Gardens, Kew	830
British Museum, London	537
Saharanpur Herbarium	281
Royal Botanic Garden, Edinburgh	309
Ditto ditto, Peradeniya	319
Botanic Garden, Singapore	319
Government Central Museum, Madras	219
College of Science Museum, Poona	247
Government Museum, Perak	406
J. S. Gamble, Esq., Director, Forest School, Dehra Dun	199
C. Curtis, Esq., Forest Herbarium, Penang ...	277
W. A. Talbot, Esq., Forest Office, N. Canara ...	102
Herbarium, Imperial Gardens, St. Petersburg ...	332
Ditto, Royal Garden, Buitenzorg	263
Smithsonian Institution, Washington, U.S.A. ...	404
Imperial Museum, Vienna	257
Botanic Garden, Vienna University	204
Royal Botanical Museum, Berlin	436
Ditto ditto, Florence	103
Herbarium, Jardin des Plantes, Paris	266
Royal Herbarium, Leiden	519
Herbarium of the University of Cambridge ...	263
Ditto ditto of Upsala ...	195
Ditto ditto of Utrecht ...	168
Ditto ditto of Melbourne ...	527
Ditto ditto of Aberdeen ...	206
Herbarium of Owen's College, Manchester ...	188
M. A. de Candolle, Genova	461
Signor O. Beccari, Florence	269
Gustav Mann, Esq. (*Ferns*)	774
Dr. V. F. Brotherus, Helsingfors (*Mosses*) ...	625
Total ...	10,505

D. PRAIN, M.B., *Surgeon,* I.M.S.,

Acting Superintendent, Royal Botanic Garden, Calcutta.

R. D'R.—Reg. No. 905J—500—1-6-92.